0031990

Meeting Minutes Transmittal/Approval
Tri-Party Agreement Milestone Review Meeting
EPA Conference Room
Richland, Washington
August 19, 1993

From/
Appvl.: _____ Date: 10/19/93
Steven H. Wisness, RL (A5-19)
Hanford Project Manager

Appvl.: _____ Date: _____
Doug Sherwood, EPA (B5-01)
Acting Project Manager

Appvl.: _____ Date: 9/22/93
Roger Stanley, Ecology
Hanford Project Manager

Prepared by
Appvl.: _____ Date: 10/19/93
Frank T. Calapristi
Westinghouse Hanford Company

DISTRIBUTION

Austin, BA	WHC	B2-35	Konzek, GL	RL	R3-73
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Dev, M	RL	R3-74	Stanley, R	ECO	Olympia
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Forehand, GD	WHC	B2-35	Wisness, SH	RL	A5-15
Fort, LA	WHC	S4-55	Yerxa, JK	RL	A5-15
Fritz, RL	WHC	B4-08	Zuroff, WF	WHC	R2-14
Geier, CJ	WHC	R2-50	EDMC	WHC	H6-08*
Hernandez, PR	RL	R3-72			

* Did not attend

1. **M-01-00, Grout Campaigns**

The information was presented by Rudy Carreon (Attachment 1).

Under "Planned Activities", Ecology asked about the distribution of the FY 1994 budget. DOE said the budget will be applied towards: staff, university support for grout formulation, raw materials, and most money will go for development of operational test procedures.

DOE asked Ecology and EPA for a response to their letter where they asked the regulators to recognize the need for a ramp down prior to FY 1994 (Attachment 1A). Ecology and EPA said they will provide a response.

Roger Stanley asked if there was any information on advanced low level waste treatment activities. DOE noted a workshop is planned to select the best process for evaluating waste treatment activities.

2. **M-02-00, Pretreatment**

The information was presented by Steve Barker, (Attachment 2).

Under "Planned Actions", Ecology asked about the generation of aerosols during retrieval and how this was affecting the Tank Farms. (Discussion was deferred to the M-07-00 review).

No issues or action items were identified.

3. **M-03-00, Hanford Waste Vitrification Plant (HWVP)**

The information was presented by Jim Couey, (Attachment 3).

Under "Planned Activities", Ecology asked about Hanford readiness regarding HWVP construction. DOE reported the design of the foundation is complete and the contract award to pour the foundation, will be within three to four months after a decision is made to proceed.

No issues or action items were identified.

4. **M-31-00, Additional Double Shell Tanks (DST's)**

The information was presented by Glenn Konzek, (Attachment 4).

Under "Accomplishments", Steve Wisness reported Jim Thomas (HEAL) stated at the Spokane meeting that he has not seen any justification for additional DST's. Glenn Konzek said the Waste Volume Projections justify more than five million gallons of tank volume.

Steve Wisness stated he will call Jim Thomas to clarify his request and to offer additional information on DST justification.

5. **M-04-00, Treatability Studies**

The information was presented by M. Dev, (Attachment 5).

There were no issues or action items were identified.

6. **M-06-00, M-07-00 and M-08-00**

The M-06, M-07, and M-08 milestone status was presented by Wendell Wrzesinski, (Attachments 6, 7 and 8).

M-06-00 SST Retrieval Technology

M-07-00 Demonstrate SST Retrieval Technology

Under "Accomplishments", Roger Stanley asked when a response is needed on the Action Description Memo (ADM) on the NEPA process. DOE responded that a quick response is not critical to the schedule at this time.

In response to Roger Stanley's earlier question on the generation of aerosols and how it affects retrieval in the Tank Farms; Les Fort said part of the PNL development work is to evaluate the affect of aerosols on the off-gas actions. A formal report will be issued when completed.

M-08-00 Demonstrate Full Scale Tank Farm Closure

Under the Budget Assessment discussion, DOE reported being underspent and said Program planning activities are not being completed due to manpower shortfalls; however, no impact to the M-08 schedule was identified at this time.

7. **M-05-00, SST Stabilization**

Prior to the M-05-00 discussion, R. Raymond of WHC presented an assessment of the Tank Farm Standdown and its affect on the re-start of projects B-110 and B-111. A field work logic plan was discussed which identified the alternative actions being considered (Attachment 9). However, DOE believed work would not be restarted before September 1, 1993.

The M-05-00 status was presented by Guy Bishop (Attachment 9A) and under "Planned Actions", Guy reported the Tank Farm Standdown will have a significant impact on the stabilization program. This includes the interim stabilization of tanks 241-BY-102, BY-109, C-102, C-107 and C-110. The full impact will not be determined until an evaluation is completed.

8. **M-10-00, SST Core Sampling Activities**

The information was presented by Paul Hernandez, (Attachment 10).

Under the "Accomplishments" discussion, DOE reported they received approval from the Washington State Department of Health (WDOH) and EPA on the notice of construction for the Rotary Mode HEPA Exhauster rotary drilling in FeCN tanks. Ecology and EPA questioned what elements of the Air Permit were approved by WDOH and EPA.

Action: **DOE to provide Ecology and EPA with a copy of the Air Permit approval letter received from WDOH and EPA.**

Resp.: **P. Hernandez** **Date:** **August 27, 1993**

Under the "Planned Action" discussion, DOE reported milestone M-10-13 will be missed as a result of the Tank Farm Standdown. In addition, the recommendations of the Standdown team must be completed before a full impact can be determined. However, Ecology was questioning the DOE decision to stop work on the Operational Test Procedures (OTP's) for Rotary Mode Sampling and if this should be included under the standdown umbrella.

After a short discussion, the following action item was assigned.

Action: **DOE to review work on the OTP's for the Rotary Mode Sampler and determine if this work can be exempted from the Tank Farm Standdown.**

Resp.: **Steve Wisness** **Date:** **August 27, 1993**

AGENDA

TRI-PARTY AGREEMENT MAJOR MILESTONE MANAGEMENT REVIEW

THURSDAY, AUGUST 19, 1993

EPA CONFERENCE ROOM
MEDICAL DENTAL CENTER

TIME	MILESTONE	TITLE	RL DIVISION DIRECTOR	LEVEL 2/3 MANAGER	PRESENTER
9:00 am	M-01-00	Complete 14 Grout Campaigns	G. H. Sanders	R. J. Murkowski	G. H. Sanders
9:10 am	M-02-00	Pretreatment	Lief Erickson	W. C. Miller	S. T. Burnam
9:30 am	M-03-00	Initiate HWVP Operations	R. W. Brown	R. A. Smith	R.L. Long
9:45 am	M-31-00	Additional DSTs	R. W. Brown	R. L. Fritz	G. R. Konzek
	M-04-00	Annual Treatability Studies	Lief Erickson	W. C. Miller	M. Dev
10:00 am		BREAK			
10:15 am	M-05-00	SST Stabilization	R. E. Gerton	R. E. Raymond	G. E. Bishop
10:30 am	M-06-00	Develop SST Retrieval Tech.	Lief Erickson	W. C. Miller	W. R. Wrzesinski
	M-07-00	Demonstrate SST Retrieval	Lief Erickson	W. C. Miller	W. R. Wrzesinski
10:45 pm	M-08-00	Full-Scale Farm Closure Demo.	Lief Erickson	W. C. Miller	W. R. Wrzesinski
	M-09-00	Closure of 149 SSTs	R. D. Freeberg	T. M. Wintczak	D. H. Alexander
11:15 pm	M-10-00	SST Core Sample Analysis	R. E. Gerton	J. G. Propson	P. R. Hernandez
11:45 pm		ADJOURN			

ATTENDEES

TPA MILESTONE MANAGEMENT REVIEW

AUGUST 19, 1993

EPA CONFERENCE ROOM
MEDICAL DENTAL CENTER

NAME	ORGANIZATION	MAILSTOP
FRANK CALAFRISTI	WHC/TPA	B2-35
Becky Austin	WHC/TPA	B2-35
JON YERXA	DOE	
Doug Sherwood	EPA	B5-01
STEVEN BARKER	WHC / PRETREATMENT	S4-55
Scott McKinney	Ecology	
ROGER STANLEY	Ecology	
David Foreland	WHC/TPA	B2-35
Carol Geier	WHC/TWRS	
Bob Brown	DOE-TWRS	A5-10
[illegible]	[illegible]	[illegible]
[illegible]		
Jim Cowen	DOE-RL	B3-73

ATTENDEES

TPA MILESTONE MANAGEMENT REVIEW

AUGUST 19, 1993

EPA CONFERENCE ROOM
MEDICAL DENTAL CENTER

NAME	ORGANIZATION	MAILSTOP
R.L. Fritz	TWRS Project - WHC	B4-08
W.R. WRZESINSKI	DOE	
R.E. RAYMOND	WHC	
G.E. BISHOP	DOE	
W.C. MILLER	WHC	
LES FORT	WHC	

 (ATTACHMENT 1)

Grout Facilities Milestone M-01-00
Complete 14 Double-Shell Tank Grout Campaigns

presented to

State of Washington Department of Ecology and
U.S. Environmental Protection Agency

George Sanders, RL Disposal Branch
Rudy Carreon, Grout Program Manager
Russ Murkowski, WHC Level 3 Manager

August 19, 1993

Milestone Description

M-01-00

Complete 14 grout campaigns of double-shell tank (DST) waste by December 1996 and maintain currency with feed thereafter.

Baseline Schedule

Complete 14 campaigns by December 1996.

Note: Tri-Party Agreement (TPA) change request was denied by Ecology and EPA on October 30, 1992. RL responded with a letter to Ecology and EPA on November 6, 1992, invoking dispute resolution under the TPA.

Negotiations have begun with Ecology.

Accomplishments

• Submitted responses to Ecology Part B Permit Application notice of deficiencies	June 1993
• Completed vault 103 rehydrotest - vault met Ecology acceptance criteria	June 1993
• Completed Grout Treatment Facility Production Capacity Study	July 1993
• Completed DST grout vault closure plan	June 1993

Planned Activities for Next Six Months

• Ramp down of Program	
• Complete development of procedures and facility upgrades	
• Submit Performance Assessment (PA) to DOE	September 1993
• Transmit 102-AP characterization package to RL	February 1994
• Issue complete Final Safety Analysis Report to DOE for approval	December 1993
• Complete Candidate Tank (105-AP, 106-AP) Analysis Report	November 1993

Milestone Assessment

		Schedule	TPA Baseline	Status
•	M-01-01A	Complete and verify 2 campaigns (101, 102).	9/93	2
•	M-01-01B	Complete 1 additional campaign (103).	12/93	2
•	M-01-02	Complete 3 additional DST campaigns in 1994 (104, 105, 106).	12/94	2
•	M-01-02A	Initiate construction of vaults 106-109.	11/92	Complete [1] and [2]
•	M-01-03	Complete 4 additional DST campaigns in 1995 (107-110).	12/95	2
•	M-01-03A	Initiate construction of vaults 110-113.	11/93	2
•	M-01-04/00	Complete 4 additional campaigns in 1996 (111-114).	12/96	2
•	M-01-04A	Initiate construction of vault 114.	11/94	2

Achievement of these milestones is not considered possible. Furthermore, we anticipate a several month delay in the 10/93 targeted facility restart and 10/94 proposed milestone M-01-01A noted in change request M-01-92-01A, due to facility preparation delays.

1 Suspension of further excavation/construction work on vault 106-109 has been deferred with Ecology concurrence.

2 Being evaluated as part of Tank Waste Remediation System Rebaselining and subject of ongoing negotiations.

Milestone Assessment (Cont'd)

- Cost versus Budget

(Dollars in Millions)

Cumulative	Oct-Mar	Apr	May	Jun	Jul	Aug	Sept
FYTD Budget	17.8	20.3	24.2	27.3	31.0	35.2	39.1
FYTD Cost	14.7	17.9	22.4	25.9	31.5		
Spending Variance	3.1	2.4	1.8	1.4	(.5)		

Variance Explanation: Spending overrun due mainly to inconsistent reporting of CENRTC and construction (General Plant Project [GPP]/Line Item [LI]) costs on a Fiscal-Year-To-Date basis. Late receipt of costs this fiscal year (budgeted in prior years) and practice of withholding final payment on support equipment (portable instrument houses and exhausters, etc.) until final acceptance testing is complete. Reclassification of project W-062, Tank 104-AP Upgrades, from GPP to LI (approved in May) was processed as a current year project, distorting prior month financial reporting.

Special Topics

Key Issues

- Critical path schedule compared to current TPA milestones and pending dispute resolution.
  - TPA negotiations have begun

Technical Issues

- PA.
  - PA Steering Committee comments have been incorporated and PA has been submitted to WHC Safety Environmental Advisory Council for review.

Change Notice Activity

- Change request M-01-92-01A has been denied by Regulators.
- Dispute resolution invoked by RL.
- Additional delays to Change Request M-01-92-01A are being encountered.
- Negotiations with Ecology have begun.

(ATTACHMENT 1A)

Department of Energy
Richland Field Office
P.O. Box 550
Richland, Washington 99352

9305051

AUG 06 1993

93-DSB-034

Mr. Roger F. Stanley, Director
Tri-Party Agreement Implementation
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 99504-7600

Mr. Douglas Sherwood
Hanford Project Manager
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Dear Messrs. Stanley and Sherwood:

LOW-LEVEL WASTE DISPOSAL PROGRAM (LLWDP) RAMP-DOWN IN FISCAL YEAR 1993

As a follow-up to the first negotiation meeting on July 14, 1993, which discussed the LLWDP, the U.S. Department of Energy, Richland Operations Office (RL), would like to obtain the State of Washington Department of Ecology's (Ecology) and U.S. Environmental Protection Agency (EPA) concurrence to suspend minor Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) related activities outlined in the enclosure. RL believes the suspension of these activities is a financially prudent and employee sensitive decision. Ecology and EPA concurrence with the proposed suspension will allow the LLWDP to begin an orderly ramp down prior to FY 1994, since the funding has been reduced from $36.1M expense in FY 1993 to $15.0M expense in FY 1994. This budget reduction is consistent with the proposed New Technical Strategy (NTS) for the Tank Waste Remediation System currently being negotiated.

This action will be altered if necessary, based on the agreements of the current negotiations. RL requests Ecology's and EPA's written response by August 15, 1993, on this proposal.

If you have any questions regarding the Low-Level Waste Disposal Program, please call Rudy Carreon of the Tank Waste Disposal Division on (509) 376-9461.

Sincerely,

Steven H. Wisness
Hanford Project Manager

DSB:RC

Enclosure

cc w/encl:
R. Cordts, Ecology
D. Duncan, EPA
H. Harmon, WHC
R. Murkowski, WHC
B. Austin, WHC
J. Tseng, EM-36
D. Mark, EM-36

Recommended FY 1993 Workscope Deferrals on Grout

Scope: Identify FY 1993 workscope which can be deferred during Tri-Party Agreement negotiations to allow RL/WHC to proceed with orderly transition to standby in FY 1994

	Impact
• ORR Compliance Assessment	WHC/Contractors
• Slow down work package development	WHC/KEH/Contractors
• Fabrication of core sample transfer casks	WHC
• Grout formulation envelope for future campaigns	WHC/PNL/ORNL
• Characterization of candidate tanks (subsequent vault 103)	WHC
• PIH 4 and 5 procurement specifications and design	WHC
• Design waste adjustment equipment	WHC
• Glove box design	WHC
• All future Grout vault design and construction	WHC/KEH

Recommended FY 1993 Workscope Continuation

Scope: Complete critical vault 102 activities and activities associated with meeting FY 1994 facility objective: maintain facilities in safe and compliant configuration

- FSAR
- Resolution of hydrogen generation issue
- Performance Assessment
- 102-AP certified data package
- 105-AP, 106-AP characterization
- Procedure development
- Training of personnel
- Campaign plan
- Cold cap installation vault 101 and vault 102 cold cap development
- Critical capital work (spare critical equipment, 104-AP upgrade, water line upgrade)
- Enhanced cementitious waste form
- Integrated Systems Testing documentation
- Alternative low-level waste disposal techniques

(ATTACHMENT 2)

INITIATE PRETREATMENT OF DOUBLE-SHELL TANK WASTES

Milestone M-02-00

S. A. Barker

Waste Pretreatment

August 19, 1993

MILESTONE DESCRIPTION

- M-02-00 — Initiate pretreatment of double-shell tank waste

  Double-shell tank waste pretreatment is required prior to disposal of high-activity tank wastes. The pretreatment supports the removal, treatment, and final disposal of wastes subject to land disposal restriction which are stored in double-shell tanks. Removal of the wastes from double-shell tanks and disposal in grout or glass will allow double-shell tank space to be made available for single-shell tank waste

- DELIVERABLE(S)
  - Program documents which define plans to develop, demonstrate, and implement pretreatment processes for tank wastes (M-02-03).
  - Start DST NCAW retrieval system process test (M-02-04)
  - Incorporate additional interim milestones to support pretreatment of double-shell tank waste (M-02-05)

MILESTONE DESCRIPTION (cont)

- **BASELINE SCHEDULE (Interim)**
  - Submit tank waste remediation system baseline scope, cost, and schedule by August 1993 (M-02-03). (Proposal to defer submittal to January 1994 was agreed to by Ecology and EPA)
  - Start DST retrieval process test by December 1996 (M-02-04)
  - Incorporate additional milestones for pretreatment by August 1993 (M-02-05). (Proposal to defer submittal to January 1994 was agreed to by Ecology and EPA)

ACCOMPLISHMENTS (Last three months)

- Approved test procedure for turning off the airlift circulators in tank 101-AZ to assess temperature response, and installed temperature monitoring and sludge level instrumentation in support of the Phase I settling/bump test.

- Initiated Phase I of tank 101-AZ settling/bump test

- Installed tanks from the Quarter Scale Test Facility in the 336 building. The Quarter Scale Test Facility supports development of DST retrieval technology.

- Awarded contract for fabrication and delivery of mixer pumps for Project W-151, Tank 101-AZ Waste Retrieval System

ACCOMPLISHMENTS (Last three months) (cont)

- The process selection committee for the Initial Pretreatment Module (IPM) narrowed the number of candidate organic destruction processes to three - low temperature hydrothermal, high temperature hydrothermal, and calcination

- Initiated negotiations with the Department of Ecology and EPA to define approach and milestones for retrieval and pretreatment, for the TWRS new technical strategy

PLANNED ACTIONS (Next six months)

- Issue a report on identification and evaluation of alternative pretreatment processes
- Complete construction of the Quarter Scale Test Facility for DST retrieval technology development
- Complete 1/25 scale mobilization test series on DST simulants
- Complete first phase of 1/12 scale uniformity tests supporting DST retrieval technology development
- Issue the near term DST/SST retrieval sequence supporting document
- Issue the waste retrieval program plan
- Initiate field construction for Project W-151, tank 101-AZ waste retrieval system

PLANNED ACTIONS (Next six months) (cont)

- Select the organic destruction technology for deployment in IPM
- Initiate IPM Conceptual Design
- Issue a report addressing generation of aerosols during retrieval operations
- Complete TPA negotiations to reach consensus on TWRS disposal strategy as it relates to M-02-00. Establish revised TPA milestones to reflect the new strategy.

MILESTONE ASSESSMENT (cont)

- Schedule

MILESTONE	DESCRIPTION	DATE	STATUS
M-02-03	Submit TWRS baseline documents	8/93	Change Request prepared to delay submittal to 1/31/94 pending completion of TPA negotiations. Ecology & EPA agreed to approve.
M-02-04	Start DST NCAW retrieval system process test	12/96	On Schedule
M-02-05	Incorporate additional interim milestones to support pretreatment	8/93	Change Request prepared to delay submittal to 1/31/94 pending completion of TPA negotiations. Ecology & EPA agreed to approve.

MILESTONE ASSESSMENT (cont)

- Schedule

MILESTONE	DESCRIPTION	DATE	STATUS
M-02-00-T3	Publish summary of NCRW TRUEX laboratory development work	12/92	Complete 3/93, Doc PNL-8558
M-02-00-T4	Complete engineering study on Cs ion exchange	3/93	Complete 3/93
M-02-00-T5	Complete waste treatment feed optimization (blending) study	3/93	Complete 3/93, Doc PNL-8589
M-02-00-T6	Issue Technology Plan for selection of advanced (actinide) separation process	3/93	Complete 3/93, Doc WHC-EP-0629

MILESTONE ASSESSMENT (cont)

- Schedule

MILESTONE	DESCRIPTION	DATE	STATUS
M-02-00-T7	Initiate settling tests for NCAW in-tank solids washing	12/93	Draft letter prepared to define milestone as initiation of Phase I settling/bump test in tank 101-AZ (Test was initiated on August 4, 1993)

MILESTONE ASSESSMENT (cont)

- Budget vs. Cost ($ in ~~Thousands~~ MILLIONS)

Cumulative	Oct-Mar	Apr	May	Jun	Jul	Aug	Sep
FYTD Budget	7.272	8.654	9.759	12.378	15.124	18.595	22.819
FYTD Cost	6.296	7.698	9.634	11.166	12.828		
Spending Variance	.978	.961	.125	1.212	2.296		

Variance Explanation: The principal contributors to the spending variance are (a) billing delays by subcontractors, (b) unavailability of manpower resources to start work in some areas, (c) delays in long lead procurement items, and (d) work stoppage in IPM for less promising organic destruction technology development.

SPECIAL TOPICS

- ## Change Requests

  - Draft change requests were prepared to defer TPA milestones M-02-03 and M-02-05 from August 1993 to January 1994, pending completion of TPA negotiations to establish new milestones for TWRS new technical strategy. Ecology and EPA agreed to approve the changes, at the Project Managers meeting on August 3, 1993.

  - A draft letter was prepared for submittal to Ecology proposing to define initiation of the Phase I settling/bump test in tank 101-AZ as satisfying Milestone M-02-00-T7, "Initiate Settling Tests for NCAW In-Tank Solids Washing"

Milestone M-03-00

Initiate Hanford Waste Vitrification Plant Operations

J. E. COUEY

HWVP Project Office

August 19, 1993

Milestone Description/Deliverables

M-03-00 - Initiate HWVP operations Dec. 1999*

Deliverable: Initiation of operations will be considered complete when radioactive waste is fed into the HWVP melter

* See Special Topics

Accomplishments (last three months)

- Initiated construction of Canister Storage Building
- Completed Batch Plant erection and initiated concrete production testing
- Awarded the subcontract for construction of Mechanical Site Utilities
- Approved modifications to the Operations Annex Building for interim use as TWRS Office Building. Placed 90% of the base slab and completed structural steel erection of the Operations Administration Building/TWRS Office Building
- Revision 1 to the HWVP Preliminary Safety Analysis Report has been issued for internal WHC review and comment

Planned Activities (next six months)

- Initiate installation of Mechanical Site Utilities
- Complete Phase II of the HWVP TOE Evaluation, verifying Phase I
- Continue study to increase the throughput capacity of the HWVP
- Initiate formal safety evaluation activities for the increased plant capacity (4X) concept
- Complete construction of temporary warehouse
- Initiate construction of underground utilities

M-03 Milestone Assessment

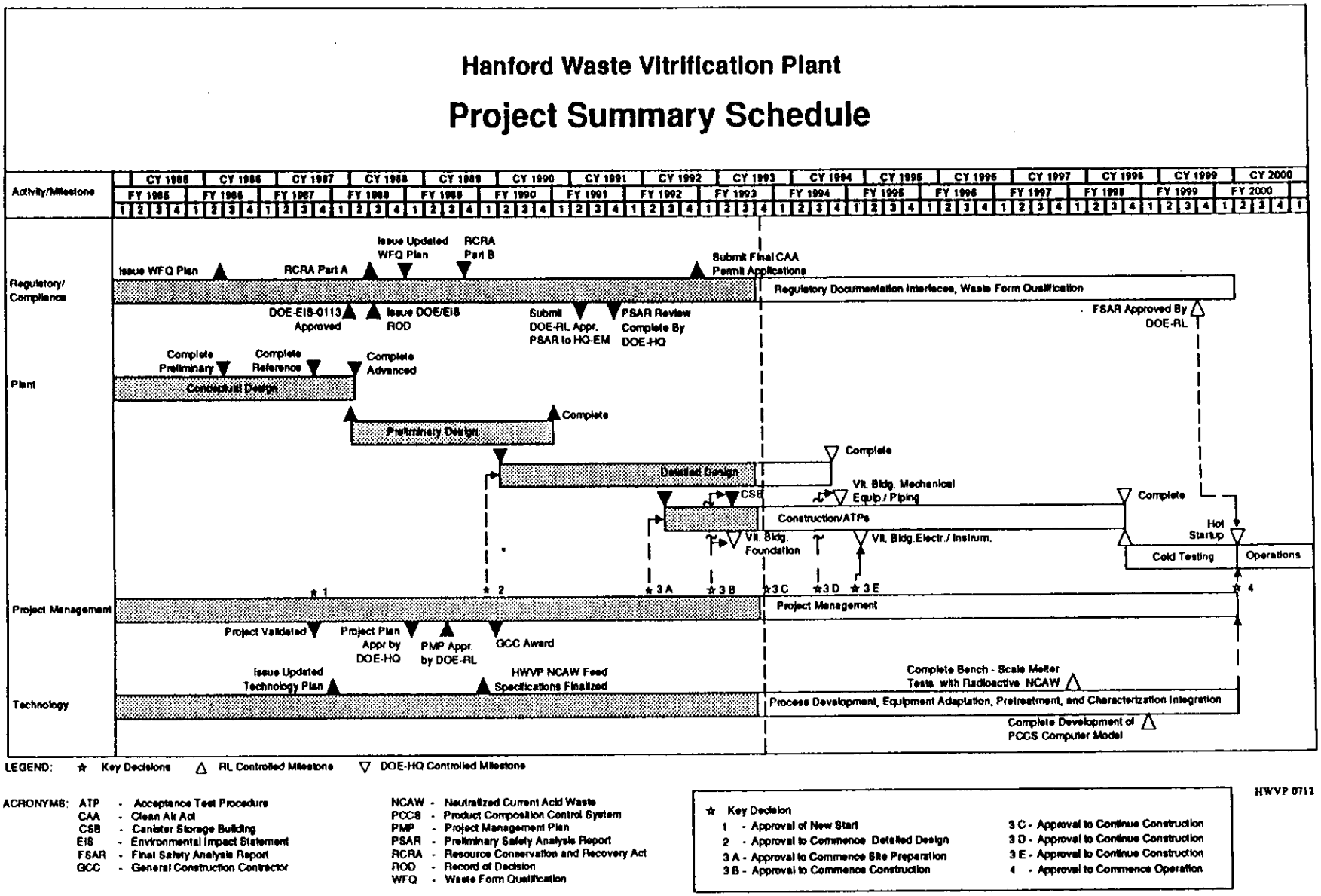
M-03 MILESTONE ASSESSMENT
Budget vs. Cost ($ in millions)
All Contracts

Cumulative	FYTD	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
FYTD Budget	42.2	54.4	66.4	63.2	74.4	77.9	90.7	105.6	125.2
FYTD Cost	32.0	39.5	48.4	56.9	68.3	77.2			
Spending Variance	10.2	14.9	18.0	6.3	6.1	.7			

VARIANCE EXPLANATION:

None required.

Project Summary Schedule



LEGEND: ☆ Key Decisions △ RL Controlled Milestone ▽ DOE-HQ Controlled Milestone

ACRONYMS:
- ATP - Acceptance Test Procedure
- CAA - Clean Air Act
- CSB - Canister Storage Building
- EIS - Environmental Impact Statement
- FSAR - Final Safety Analysis Report
- GCC - General Construction Contractor
- NCAW - Neutralized Current Acid Waste
- PCCS - Product Composition Control System
- PMP - Project Management Plan
- PSAR - Preliminary Safety Analysis Report
- RCRA - Resource Conservation and Recovery Act
- ROD - Record of Decision
- WFQ - Waste Form Qualification

☆ Key Decision
- 1 - Approval of New Start
- 2 - Approval to Commence Detailed Design
- 3A - Approval to Commence Site Preparation
- 3B - Approval to Commence Construction
- 3C - Approval to Continue Construction
- 3D - Approval to Continue Construction
- 3E - Approval to Continue Construction
- 4 - Approval to Commence Operation

HWVP 0712

Special Topics

- **Change Request**

Change Number	Class	Milestone	Description
M-03-93-01B	2	M-03-05	Changed the date for "Initiate Construction of the Vitrification Building" from March 1993 to September 1993, with a corresponding six-month delay in the start of hot operations from December 1999 to June 2000. An internal baseline change request is being processed by DOE. Approved August 3, 1993.

(ATTACHMENT 4)

PROVIDE ADDITIONAL DOUBLE-SHELL TANK CAPACITY

MILESTONE M-31-00

G. R. KONZEK
RL, MULTI-FUNCTION WASTE REMEDIATION FACILITY
PROJECT BRANCH
AUGUST 19, 1993

Open Commitments

- None

Milestone Description

- **M-31-00** Provide additional double-shell tank capacity. Construction complete. Due 1999

- **M-31-01** Complete Conceptual Design Report - for up to four tanks Due 9/30/92 (Completed)

- **M-31-01T** Initiate permitting strategy between Tri-Party Agreement Signatories Due 03/91 (Completed)

- **M-31-02** Recommend additional double-shell tank milestone(s) Due 9/30/92 (Dispute Resolution)

Milestone Description (continued)

- M-31-02-T1 Complete detailed design for first new tanks
  Due 2/95

- M-31-02-T2 Construction start of first new tanks
  Due 10/95

- M-31-02-T3 Provide additional double-shell tank capacity. Construction complete for first new tanks.
  Due 6/99

- M-31-03 Initiate Definitive Design (Complete)

TPA Milestone M-31-00
Provide additional double-shell tank capacity

Accomplishments (Last three months)

- A kick-off meeting was held to perform the study of the 200 West Area tank option. Subsequently a Level 0 Baseline Change Proposal was prepared and submitted to HQ

- The KEH Preliminary (Title I) Design Work Plan and Quality Assurance Plan were approved

- Adopted new seismic values based upon Geomatrix Company Report of the Hanford Seismic Hazards

- The Underground Tank Standard Design Criteria (SDC) 4.3 was completed and sent out for final review and approval

- The Hazards and Operational Study (HazOp) has been completed

Accomplishments (Last three months) (continued)

- The corrosion Test Plan was reviewed by the Tank Structural Integrity Panel and the detailed test procedures approved
- The Advanced Conceptual Design Report was approved and has been released
- Submitted ADM to HQ with accompanying request for determination of level

Planned Actions (next six months [M-31])

- Negotiate new TPA Milestones
- Complete Project Management Plan (at HQ awaiting concurrence)
- Obtain approval on Level 0 Change Request for project rescoping & acceleration
- Plan and execute Re-scoping based upon HQ guidance
- Issue Functional Design Criteria Compliance Report
- Issue Fire Hazards Analysis Report
- Issue Reliability, Availability, and Maintainability Report

Planned Actions (next six months [M-31])(continued)

- Complete Draft PSAR

Milestone Assessment

- Schedule
  - Limited Definitive Design (Title I) activities are continuing
  - Schedule of rescoping activities will become critical by the end of August

Special Topics

Evaluate Re-scoping based upon HQ guidance

- EM-36 guidance to rescope and assess impacts per approved JMN and December 18, 1992, letter
- The MWTF project is working to current baselines until Level 0 Change Request is approved by HQ
- A limited Title I work scope has been initiated to prevent or minimize any slippage in the current schedule

Milestone Assessment

- **Schedule**
  - Conceptual Design has been completed (M-31-01)
- **Cost -vs- Budget (Actuals through end of July)**

Cumulative	Inception - Mar	Apr	May	Jun	Jul	Aug	Sept
Cumulative Budget	7.3	8.4	10.2	11.3	12.5	14.0	15.6
Cumulative Cost	6.9	8.0	9.4	10.5	11.6		
Spending Variance	.4	.4	.8	.8	.9		

Variance Explanation: Result of Title 1 work

- o KEH did not ramp up as fast as was anticipated
- o Subsurface investigation running behind schedule

(ATTACHMENT 5)

ANNUAL REPORTS OF TANK WASTE TREATABILITY STUDIES

Milestone M-04-00D

M. Dev

Hanford Tank Waste Disposal Program

August 19, 1993

MILESTONE DESCRIPTION

- M-04-00

  Wastes stored in double-shell (DST) and single-shell (SST) tanks, as well as newly generated wastes destined to be stored in double-shell tanks, will be studied to determine the most appropriate treatment/disposal method. Studies to determine the long-term feasibility of grout or glass for disposal of these wastes are included in the scope of this milestone.

- DELIVERABLE(S)

  - The report is due annually. It is a concise addenda to the previous year's report. It will provide traceability with the activities and developments stated in the previous year's report. The areas which are covered in this report include:

    - Treatability of existing and newly generated SSTs and DSTs wastes

MILESTONE DESCRIPTION (cont)

- DELIVERABLE(S) (cont)
  - Feasibility of using grout and glass as a final waste form
  - Safety issues, such as tank 101-SY, which impact treatment
  - Other treatment/disposal technologies, such as intermediate processing, which may have an impact on future disposal

- BASELINE SCHEDULE
  - Submit report annually in September to the U.S. Environmental Protection Agency, and to the State of Washington Department of Ecology

ACCOMPLISHMENTS (Last three months)

- The coordinator completed the draft report and issued it for review on August 5, 1993

PLANNED ACTIONS (Next six months)

- Issue Revision "D" of Annual Treatability Report, September 30, 1993

MILESTONE ASSESSMENT

- Budget vs. Cost ($ in Thousands)

Cumulative	Oct-Mar	Apr	May	Jun	Jul	Aug	Sep
FYTD* Budget	17.7	26.6	69.3	87.2	107.7	128.1	148.6
FYTD Cost	0.7	2.8	10.6	36.3	37.0		
Spending Variance	17.0	23.8	58.7	50.9	70.7		

Variance Explanation: Budget for June through September was rebaselined

- Spending Variance due to the use of fewer resources than expected to prepare draft sections of report and to uncosted contract charges

 (ATTACHMENT 6)

SINGLE-SHELL TANK RETRIEVAL TECHNOLOGY DEVELOPMENT

Milestone M-06-00

W. R. Wrzesinski/D. E. Trader
Tank Waste Remediation System
Technology Development

August 19, 1993

Milestone Description

- M-06-00 — Develop single-shell tank waste retrieval technology and complete scale model testing.

- Deliverable(s) — Demonstrate retrieval technology for single-shell tank waste forms including sludge, saltcake and in-tank hardware. Show technology for support, control and deployment systems. Demonstrations to be performed in scale model tank, using simulated waste.

- Baseline Schedule — Complete demonstrations in June 1994.

Open Commitments

None

Accomplishments (Last three months)

- Completed Testing with Kaolin/Water (66-33%) Sludge Simulant at WHC In Short Duration (<30 second) tests:
  - 20-47 GPM retrieval rates achieved with air-complete
  - Up to 95 GPM retrieval rate with water (scarifier)
  - More difficult to dislodge and transport initially
  - Plugging encountered in waste hopper - need to watch diameters
  - Multiple passes may be needed for effective removal
  - Final Dilution ratios as low as 1.08 obtained
  - Three patent disclosures (scarifier, mechanical agitator, spray ring in conveyance system)

- Sandia has also progressed on Bread Boarding Hydraulic Systems for 12" Cutter and evaluated parameters for abrasive water jet cutting

- University of Missouri Rolla has completed preliminary bench scale system tests on hard wastes showing waste removal potential of water jets and jet pump conveyance

- QUEST single water jet testing completed on soft and hard waste forms (Round and Fan shape)

Planned Actions (Next six months)

- Define M-06-00 June 1994 Deliverable by September 1993.
- Complete FY93 Summary Report (all tasks)
- Complete WHC final report on tests of soft waste removal device with kaolin simulants (simulates sticky sludge).
- Continue tests of water jets at Quest Industries - Kent, WA (all waste forms)
- Initiate tests of vacuum conveyance system at PNL Richland, WA (all waste forms)
- Continue UMR work on jet pump conveyance

Milestone Assessment

- Schedule
  - Expect completion of M-06-00 on schedule June 1994

- Technical Scope
  - Early end effector tests show desired retrieval rates achievable in very short duration tests.
  - Specific June 1994 deliverables to be defined by September 1993.

Special Topics

No major issues.

MILESTONE ASSESSMENT

- **Budget vs. Cost ($ in 000's)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FYTD Budget	111	340	746	1,083	1,374	1,648	1,872	2,098	2,381	2,594	2,809	3,015
FYTD Cost	86	314	632	753	943	1,188	1,397	1,689	1,909	2,217		
Spending Variance	25	26	114	310	431	460	475	409	472	377		

Variance Explanation: Delays in contract placements and delivery for testing and equipment at various labs. Not expected to impact milestone completion June 1994. Financial Plan adjustments to occur in August.

(ATTACHMENT 7)

FULL-SCALE DEMONSTRATION OF WASTE RETRIEVAL TECHNOLOGY

Milestone M-07-00

L. A. Fort

August 1993

MILESTONE DESCRIPTION

- M-07-00
  - Initiate full-scale demonstration of waste retrieval technology
- DELIVERABLE(S)
  - Deliverable is defined as start-up of the waste retrieval equipment in the selected single-shell tank
- BASELINE SCHEDULE
  - Initiate retrieval operations - October 1997

OPEN COMMITMENTS

- NONE

ACCOMPLISHMENTS (Last three months)

- Functional Design Criteria for tank C-106 was completed
- Definitive Design Plan Issued
- Issued Action Description Memo, first step in the NEPA process
- Tank 241-C-106 Environmental Assessment is undergoing internal review
- Regulatory Permitting Plan complete

PLANNED ACTIONS (Next six months)

- C-106 Sluicing Effort (Project W-320)
  - Tank C-106 Core Sampling and analysis
  - Complete Advanced Engineering Studies/Analyses e.g., upgrades studies on electrical, shielding, and HVAC; C-Farm infrastructure study
  - Commencement of Definitive Design
    *After authorization by DOE-HQ to proceed
  - Regulatory compliance/safety documentation
    Continue safety documentation (PSE/PSEL)
    Continue environmental documentation (RCRA, CAA, NEPA)
    *ADM for approval
  - DOE-HQ approvals required to initiate design, procurement, and construction activities

MILESTONE ASSESSMENT

- **Schedule**

  - Utilizing sluicing as the retrieval method for C-106, initiation of retrieval by 10/97 possible

  - Critical items for achieving successful completion of the milestone:

    - DOE-HQ Approvals
    - Completion of Waste Characterization Analyses
    - Definitive Design
    - Construction

MILESTONE ASSESSMENT (Cont)

- Technical Scope

  - Retrieval options for M-07 tank include both sluicing and long reach manipulator systems (reference technologies)

  - Propose to initiate retrieval demonstration with sluicing

    - Sluicing technique to be used similar to past-practice technique used at Hanford in 1950's and 1970's

    - Utilizes low pressure water stream to mobilize waste into slurry stream which is pumped from the tank

    - No sub-surface barriers are planned to be utilized during retrieval of the M-07 waste tank

  - Complete 95% waste retrieval with long reach manipulator system, if required

MILESTONE ASSESSMENT (cont)

- Budget vs. Cost ($ in Millions)

Cumulative	Oct-Jun	Jul	Aug	Sep
FYTD Budget	3615	4222	4677	5060
FYTD Cost	3328	3850		
Spending Variance	147	326		

Variance Explanation: Not required, variance is less that 10%

SPECIAL TOPICS

- None

(ATTACHMENT 8)

FULL-SCALE SINGLE-SHELL TANK FARM CLOSURE DEMONSTRATION

Milestone M-08-00

L. A. Fort

August 1993

MILESTONE DESCRIPTION

• M-08-00	• Initiate full-scale tank farm closure demonstration project
• DELIVERABLE(S)	• Initiation is defined as full-scale waste retrieval
• BASELINE SCHEDULE	• Initiate full-scale closure demonstration - June 2004

OPEN COMMITMENTS

- **NONE**

ACCOMPLISHMENTS (Last three months)

- A subsurface barrier workshop was held and developed functional requirements and identified specific issue and concerns
- Provided detailed M-08 to WDOE as part of the TPA negotiations
- Provided the preliminary C-farm upgrades engineering study to WDOE
- Completed the draft retrieval program plan

PLANNED ACTIONS (Next six months)

- Initiate Phase II of subsurface barrier development
  - Additional system engineering evaluation of functions and requirements
  - Regulator input needed on expectations and requirements before commencement of Phase II barrier development work
  - Prepare subsurface barrier test and evaluation plan

MILESTONE ASSESSMENT

- **Schedule**

  - Activities during FY 1993 support the retrieval demonstration portions of the M-08 milestone date

MILESTONE ASSESSMENT (Cont)

- **Technical Scope**

  - Current TWRS plans are to demonstrate retrieval of waste for entire tank farm as part of closure demonstration

  - Closure demonstration will be accomplished by the Environmental Restoration Program

MILESTONE ASSESSMENT (cont)

- **Budget vs. Cost ($ in Millions)**

Cumulative	Oct-Jun	Jul	Aug	Sep
FYTD Budget	1570	1826	2132	2436
FYTD Cost	1361	1535		
Spending Variance	208	290		

Variance Explanation:

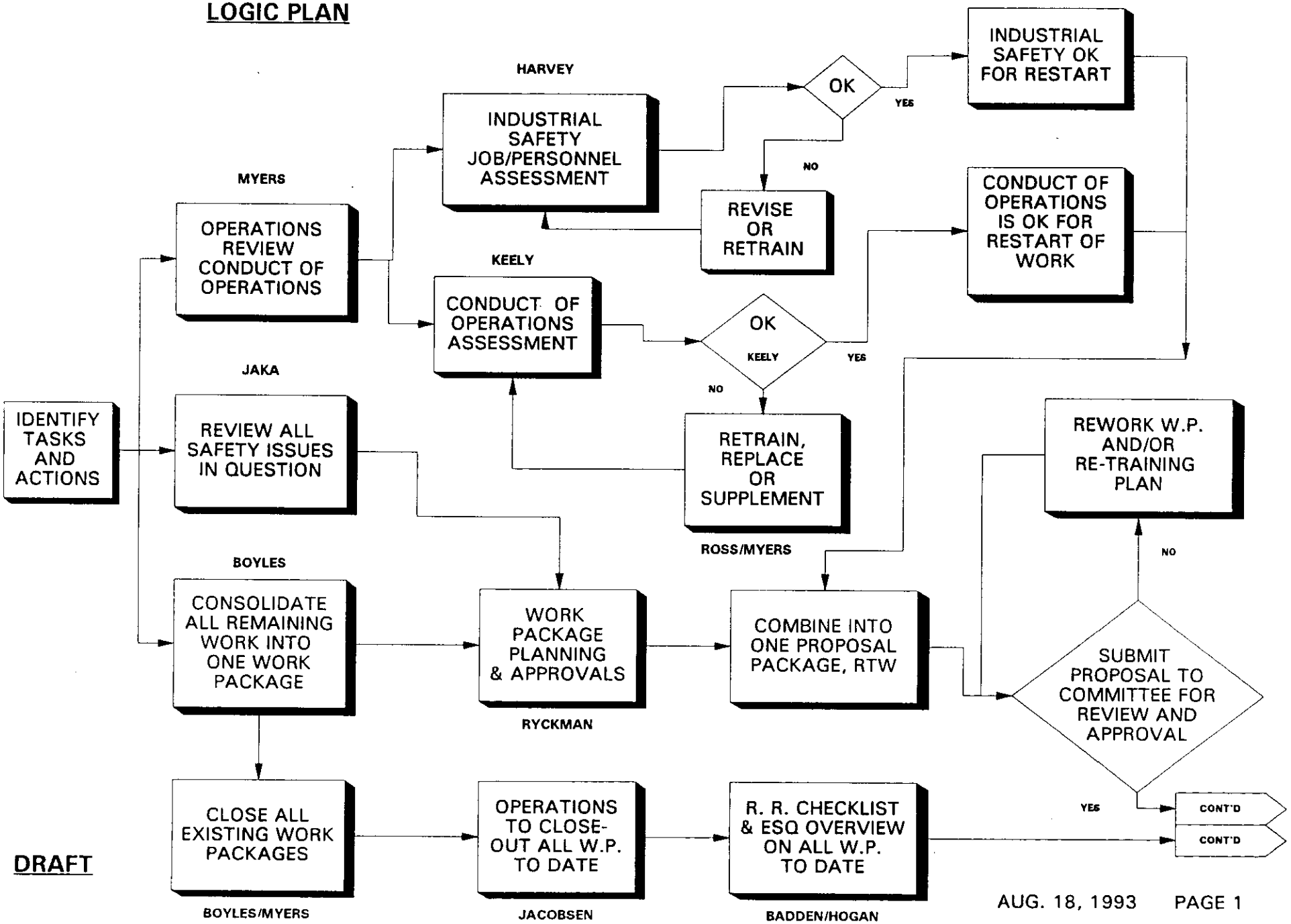
- Manpower shortfalls continue to delay the completion of a number of activities
- Internal/External reviews have not taken place to the extent as planned

SPECIAL TOPICS

- None

(ATTACHMENT 9)

BX 110/111 EMERGENCY PUMPING RE-START FIELD WORK LOGIC PLAN



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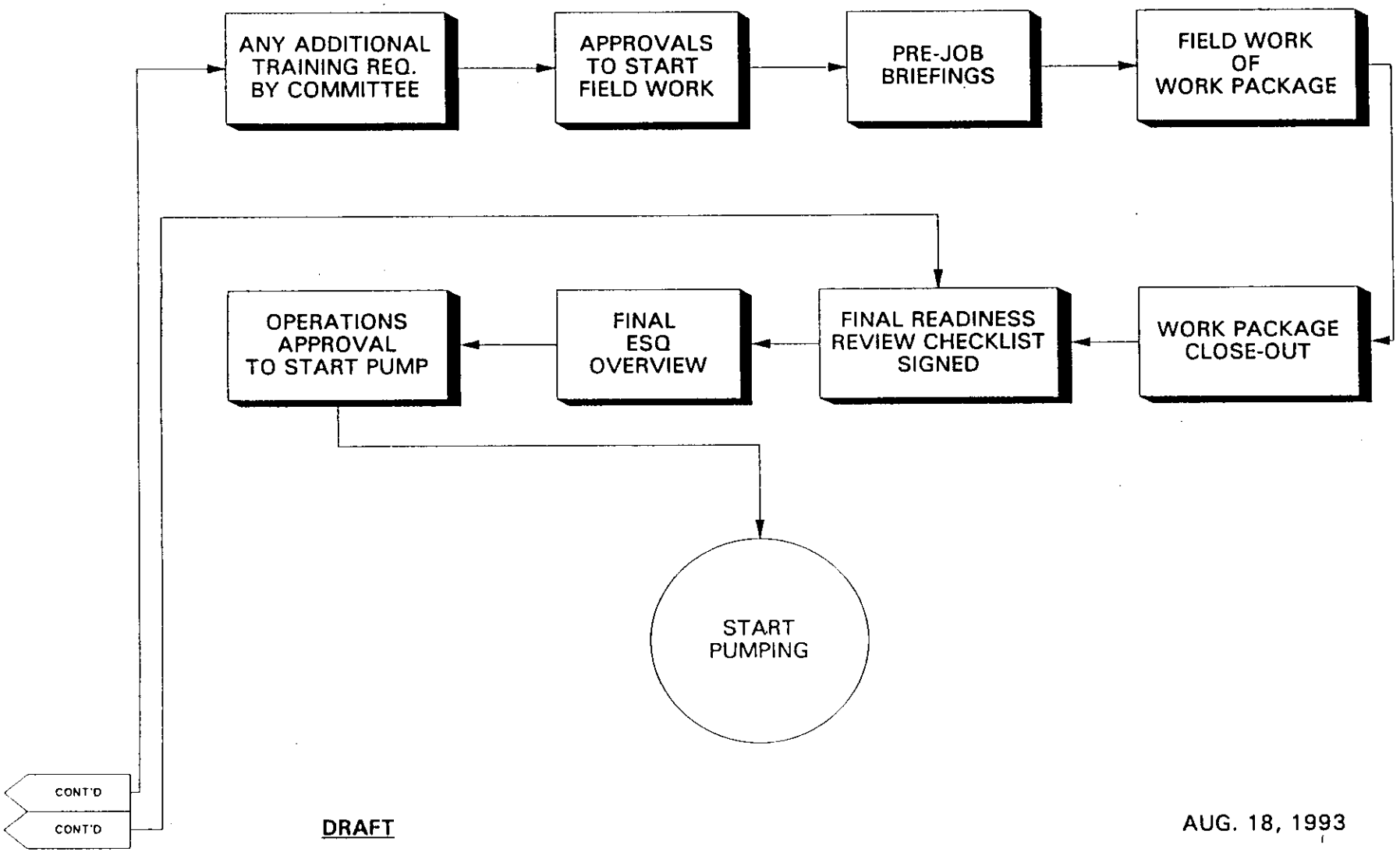


(ATTACHMENT 9A)

Complete Single-Shell Tank Interim Stabilization

Milestone M-05-00

G. E. Bishop
Tank Farms Project Office

August 19, 1993

MILESTONE DESCRIPTION

• M-05-00	Complete single-shell tank interim stabilization on all tanks except C-105 and C-106 by September, 1995. Complete interim stabilization on all tanks by September, 1996.
• Deliverable(s)	Interim stabilization will be considered complete when pumping of each tank is complete. Pumping will be complete when as much liquid as practical is removed to a double-shell tank. This occurs when pumping rate drops to 0.05 gpm. At this point, only 5000 gallons of supernatant and 50,000 gallons of interstitial liquid remain in the tank.
• Baseline Schedule	Interim stabilize single-shell tanks annually beginning in FY-1989.

ACCOMPLISHMENTS (Last 3 Months)

- Completed milestone M-05-17C, provide the schedule for completing training of all operations supervisors and shift managers in accordance with the upgraded supervisor training program, June, 1993.

- Criticality issue resolved for tanks 241-BY-102, BY-109, C-102, C-107, and C-110

- Revised the C-106 emergency plan to include comments received from Ecology in May, 1993.

PLANNED ACTIONS (NEXT 6 MONTHS)

- Continue investigation of safety issues involved with Watch List tanks.

- Finalize and approve changes to interim stabilization milestones as part of TWRS rebaselining effort. Implement program October 1, 1993.

- Prepare to interim stabilize tanks 241-BY-102, BY-109, C-102, C-107, and C-110

MILESTONE ASSESSMENT

Budget Baseline Summary - January 1993

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FYTD BUDGET	0.4	0.8	1.3	1.4	1.8	2.3	5.2	6.3	6.3	7.2	8.5	9.8
FYTD COST	0.3	1.0	1.8	2.6	3.1	3.8	4.4	5.5	6.2	7.1		
SPENDING VARIANCE	0.1	-0.2	-0.5	-1.2	-1.3	-1.5	0.8	0.9	0.1	0.1		

Schedule Performance

- Pumping suspended on January 28, 1992, due to incident involving unidentified toxic fumes. Criticality concerns have since delayed restart of pumping.

- M-05-03 (4 tanks by 9-30-91) - Missed completion date. Pumping suspended for six weeks at the end of August 1991 due to concerns over compliance with Wyden Amendment. Pumping restarted in 241-BY farm and 241-C farm in November 1991.

MILESTONE ASSESSMENT (continued)

Schedule Performance (Continued)

- Pumping suspended in January 1992, due to noxious gas issues. Pumping since delayed by criticality issues.

  - Preparations to pump initiated for four (4) tanks

- M-05-04 (9 tanks by 9-30-92) - Milestone is in dispute.

  - Change Request M-05-92-02 submitted to extend completion date 120 days. Request denied by Ecology, currently in dispute resolution.

  - Preparations to pump initiated for one (1) tank

MILESTONE ASSESSMENT (continued)

Technical Scope

- The milestone completion remains dependent on removal of current pumping restrictions. When this will occur is unknown.

- 43 tanks remain to be stabilized:

  - 18 non-Watch List tanks
  - 25 Watch List tanks

- Watch List tanks designated by Public Law 101-510, section 3137 (Wyden Amendment). Most have unreviewed safety concerns regarding hydrogen generation or ferrocyanide content. Others contain potentially flammable organics or high temperature.

- Resolution of unresolved safety issues may require presently unanticipated modifications or alterations to the affected tanks, which could delay stabilization even further.

SPECIAL TOPICS

Issue

- Due to restrictions of transfers within tank farms due to criticality concerns, the restart of pumping has been delayed.

Corrective Action

- Technical issues require discussion for renegotiation of the M-05 milestone.

Emergency Leak Response

- Currently making preparations to emergency pump assumed leaker tank 241-BX-111.

 (ATTACHMENT 10)

SINGLE-SHELL TANK CHARACTERIZATION

MILESTONE M-10-00

Paul Hernandez - USDOE/RL
John Propson - WHC

Waste Characterization Program

August 19, 1993

Milestone Description

o M-10-00	Sample and analyze at least two complete core samples from each single-shell tank.
o DELIVERABLE(S)	Obtain and analyze a minimum of two core samples from each single-shell tank. Samples will be collected and analyzed to determine the characteristics of significant waste strata to support timely development of tank waste retrieval technology and to assist in preparation of single-shell tank closure plans and the supplemental EIS. Samples will be collected and analyzed in accordance with a single-shell tank waste analysis plan.
o BASELINE SCHEDULE	Complete single-shell tank waste characterization by September 1998.

Accomplishments (Last three months)

- Completed the WesTIP evaluation of the core sampling process.

- Current developmental work related to alternate analytical methods has shown progress in the Raman Spectroscopy approach. Tests on Tank BX-107 wastes have detected non-random features in the nitrate region of the spectra. Tests have been extended to hot cell demonstrations on actual tank materials.

- The notice of construction for the Rotary Mode HEPA exhauster for rotary drilling operations in FeCN tanks has been completed and approved by WDOH and EPA. Ecology is continuing their review/approval process. Regulator assistance in the approval process is requested.

Accomplishments (Last three months)

- WHC, RL, and Ecology met to discuss the potential recovery actions via a modification to TPA Milestone M-10-07 through the formal change control process. M-10-07 requires the retrieval of 24 core samples from 12 SST's by September 30, 1993. Ecology was formally notified that, due to technical issues, the milestone cannot be met as written. Several options and alternatives were offered.

  Since the meeting, a tank farm stop work order has been issued by WHC pending resolution of safety issues. As a result of the "Stop Work", options which considered additional sampling opportunities are no longer viable. (See Milestone Assessment Section)

Planned Actions

- Resume push mode core sampling in both single shell and double shell tanks, assuming a lifting of the "Stop Work" order. (See special topics)

- Restore Rotary Mode Sampling capability to the Hanford Site. (TPA M-10-13). Ongoing "Stop Work" condition will prevent this milestone from being met.

- Identify the detailed data needs for FeCN, Organic, and High Heat Tanks by September 30, 1993.

- Issue Tank Characterization Reports for FeCN Tanks C-109 and C-110.

- Begin issuance of Historical Characterization Reports. (HCRs)

MILESTONE ASSESSMENT

- Schedule Performance

  - M-10-13 Restore Rotary Mode Core Sampling capability to the Hanford Site - September 30, 1993.

    - Completion will be delayed by the current "Stop Work" condition.

MILESTONE ASSESSMENT (cont'd)

- M-10-07 Extract 24 sample cores from 12 SSTs - September 30, 1993.
  - Milestone M-10-07 cannot be met as written. Five options are available for consideration in a possible change control action.
    - Leave the current milestone date of September 30, 1993 as is.
    - Reduce the number of core samples required.
    - Extend the completion date of the milestone.
    - Allow alternate sampling actions for M-10-07 completion.
    - ✓ Establish a new transition milestone moving toward adoption of M-44.

MILESTONE ASSESSMENT (cont'd)

- Budget vs. Cost ($ in Millions)

Cumulative	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
FYTD Budget	1.700	3.700	5.604	7.661	9.557	11.375	13.395	16.000	17.838	19.584	21.421	23.306
FYTD Cost	.583	3.138	4.874	6.902	8.680	11.361	14.279	17.422	17.678	19.474		
Spending Variance	1.117	.562	.730	.759	.877	.014	(.884)	(1.422)	.160	.110		

Laboratory analysis of the core sample backlog and activities supporting core sampling have continued through the stand-downs.

* Represents five cost accounts within the Characterization Program Budget directly related to SST sampling and analysis.

SPECIAL TOPICS

- Core Sampling Status
    - A core sampling stand-down has been ordered due to problems in the sample recovery process.
    - Several independent investigations and assessments of equipment and procedures have been initiated. Initial recommendations of the Tank Characterization Advisory Panel (TCAP) are:
        - Establish a dedicated sampling team including operations, planning, and support personnel with backup.
        - Conduct all sampling activities under explicitly defined objectives with consideration for the data user needs and the sampling equipment limitations.

SPECIAL TOPICS (con't)

- Twelve different push-mode bits have been designed and fabricated under the guidance of the TCAP and are currently being tested in waste simulants.

- A Core Sampling Recovery Test Strategy has been prepared to determine the variability in obtaining core samples for maximizing the recovery potential in various tank wastes.

  - Assigned objective is to demonstrate the ability of Core Sample Truck #1 to obtain satisfactory core samples from waste tanks.

  - Secondary objective is to determine equipment limitations.

  - Implementation of the Test Strategy has involved core sampling which commenced on May 24, 1993 in tank T-105.

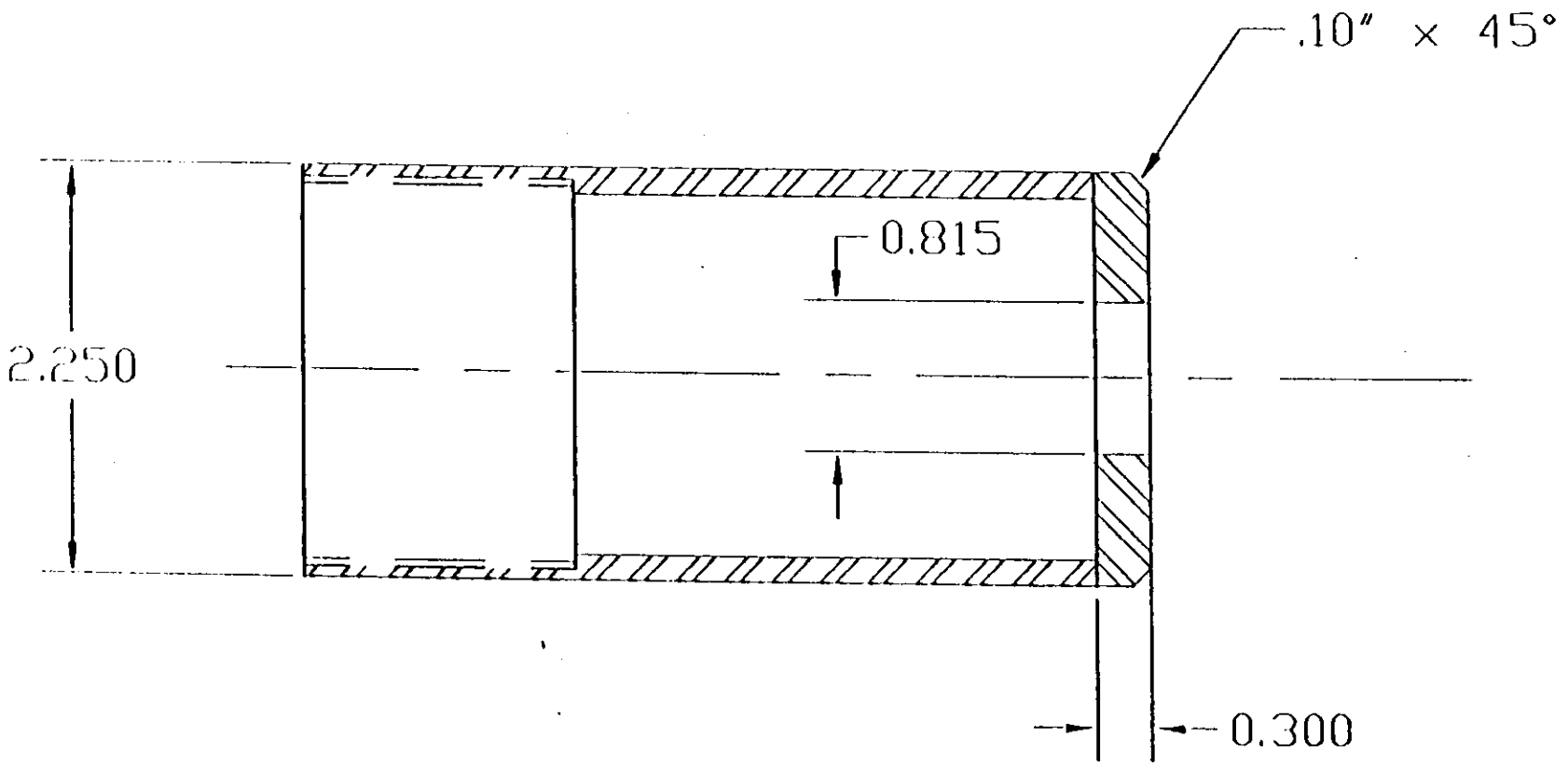
    - 10% recovery in each of 2 segments.

    - Lab report indicates a dry sludge cake.

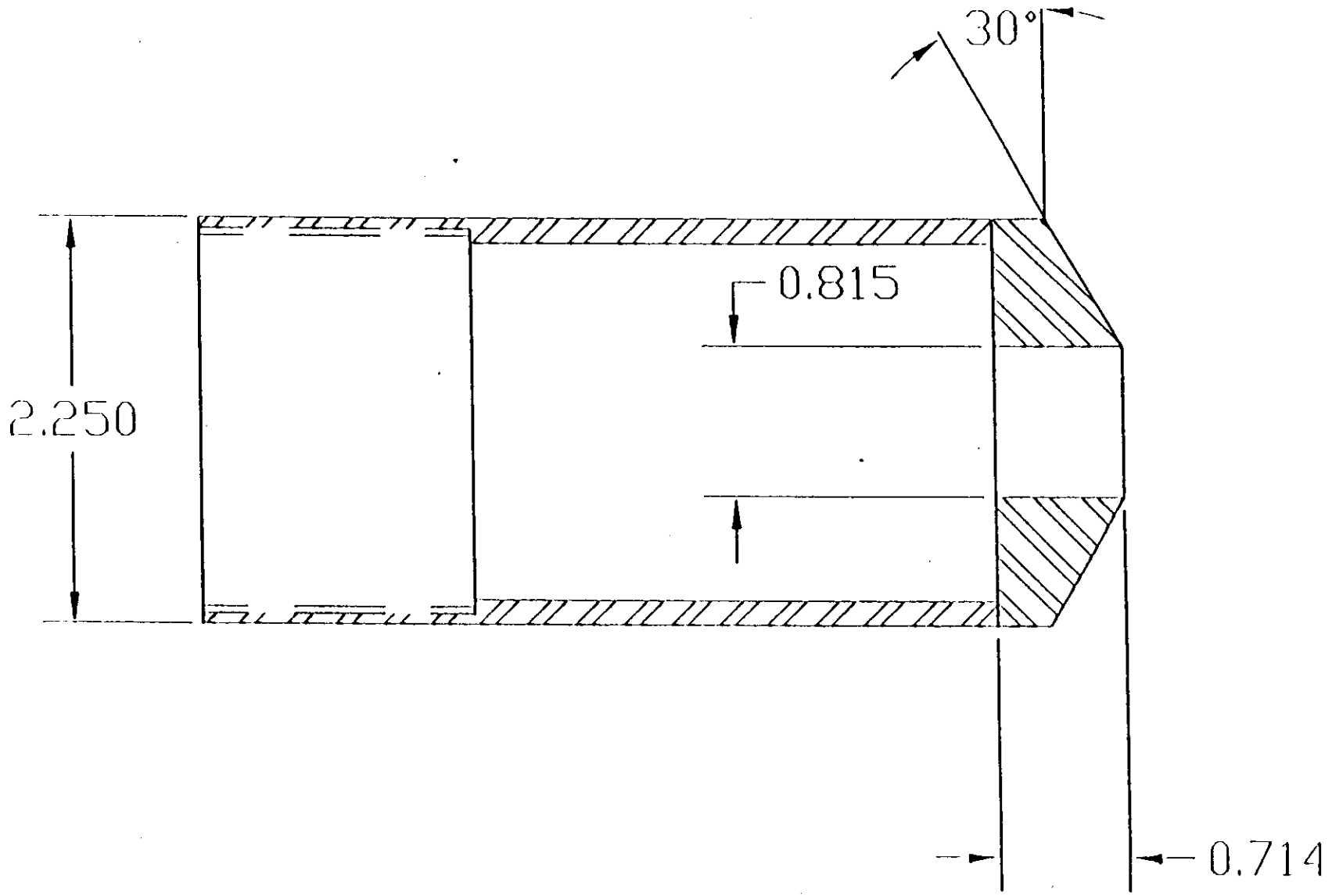
SPECIAL TOPICS (con't)

- Non-sampling activities such as work package preparation, historical data reviews, Tank Characterization Report preparation, drill bit fabrication/testing, and other supporting activities have continued during the stand-down.

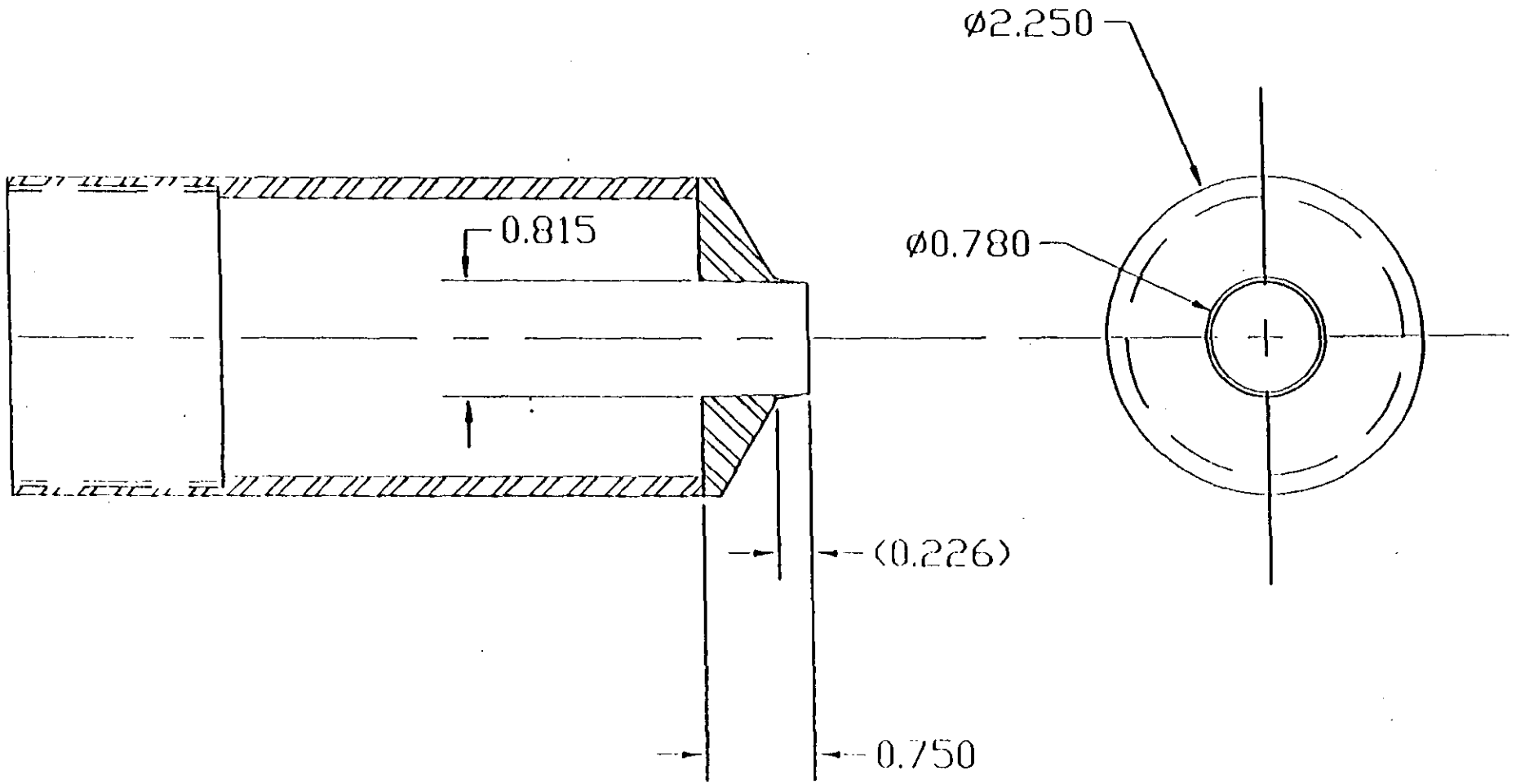
- The next core sampling effort under the restricted sampling provisions of the Recovery Test Strategy had been scheduled to occur during the week of August 23, 1993, in tank C-106. (This activity has been postponed until the current "Stop Work" allows a resumption of core sampling)



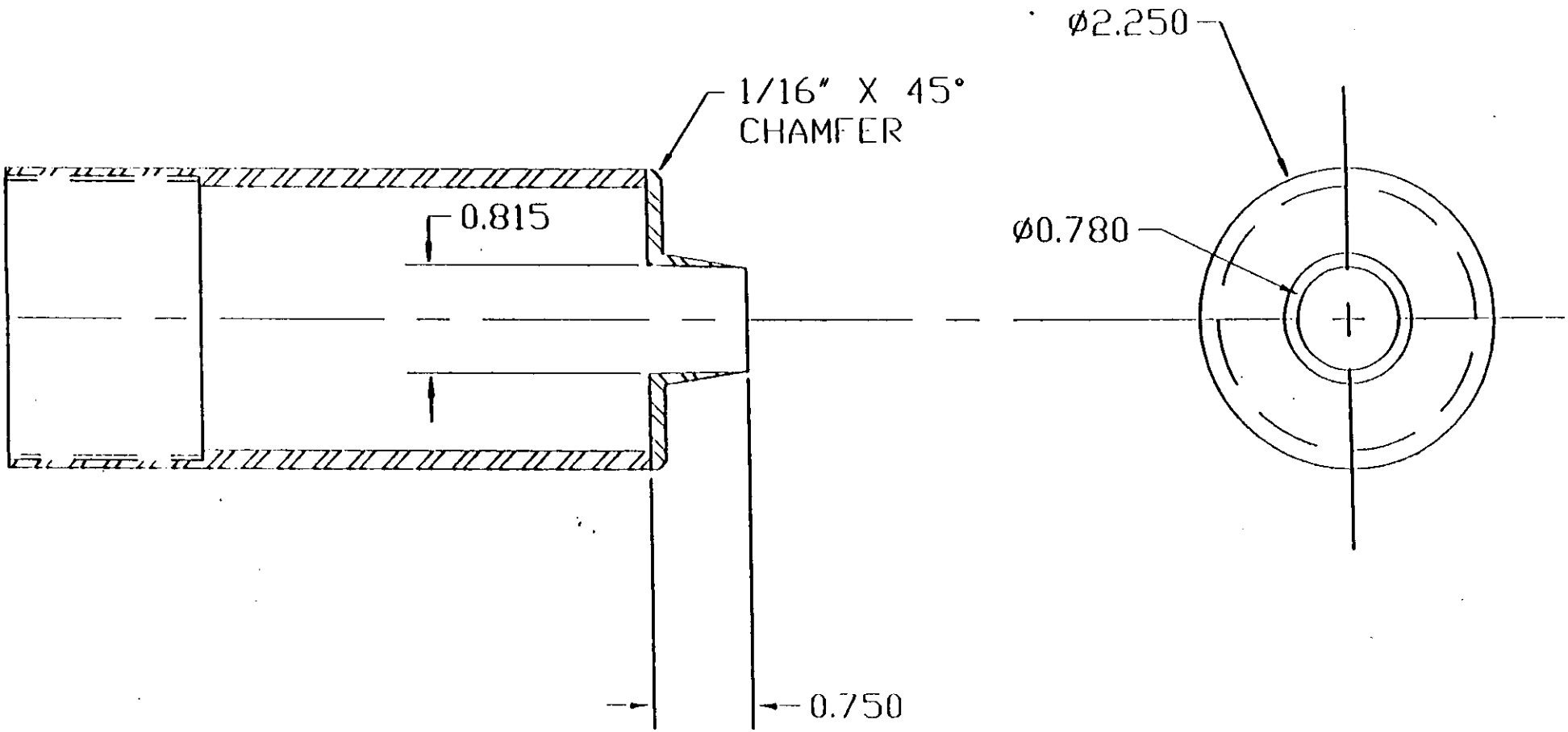
EXISTING BIT: FLAT



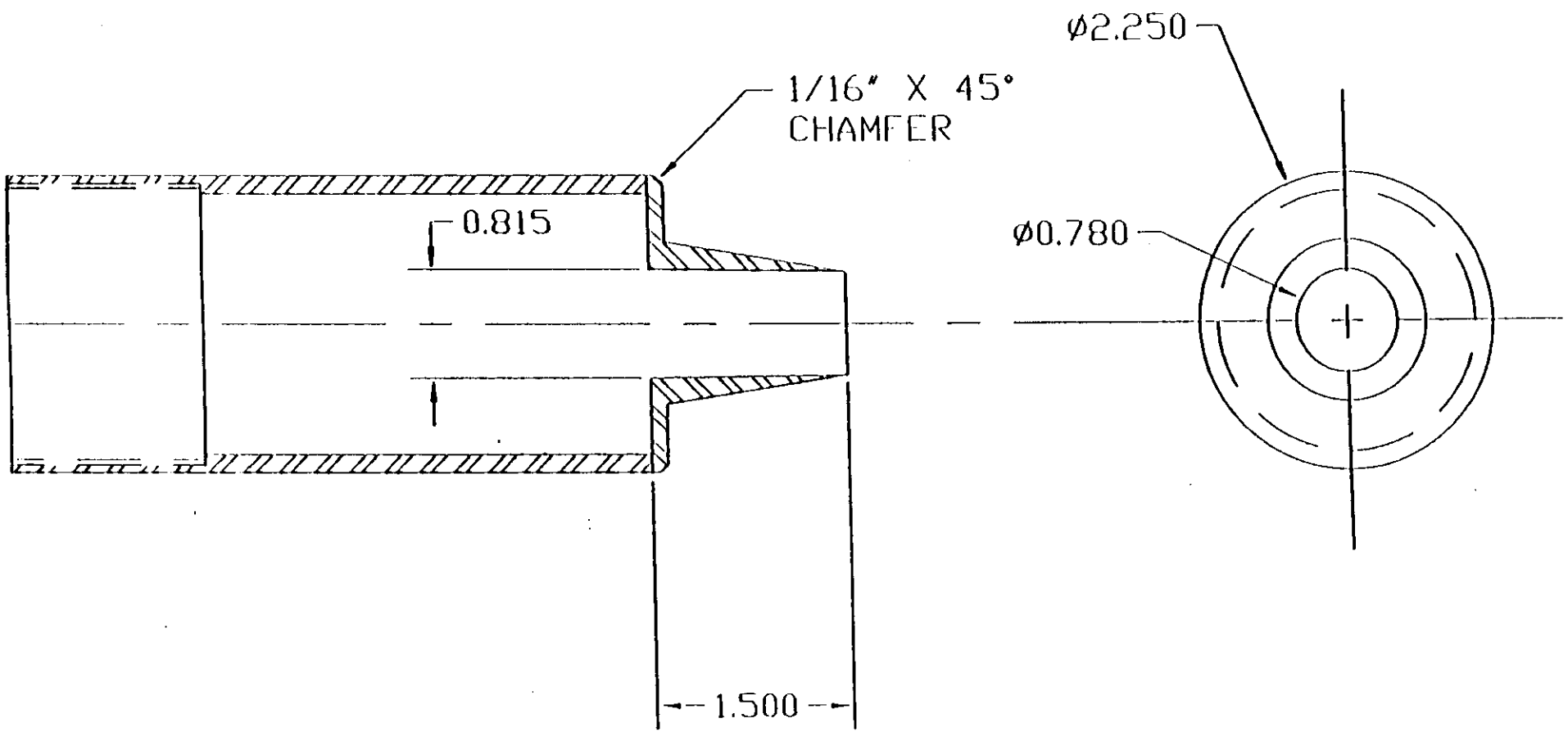
EXISTING BIT: 30° SHOULDER



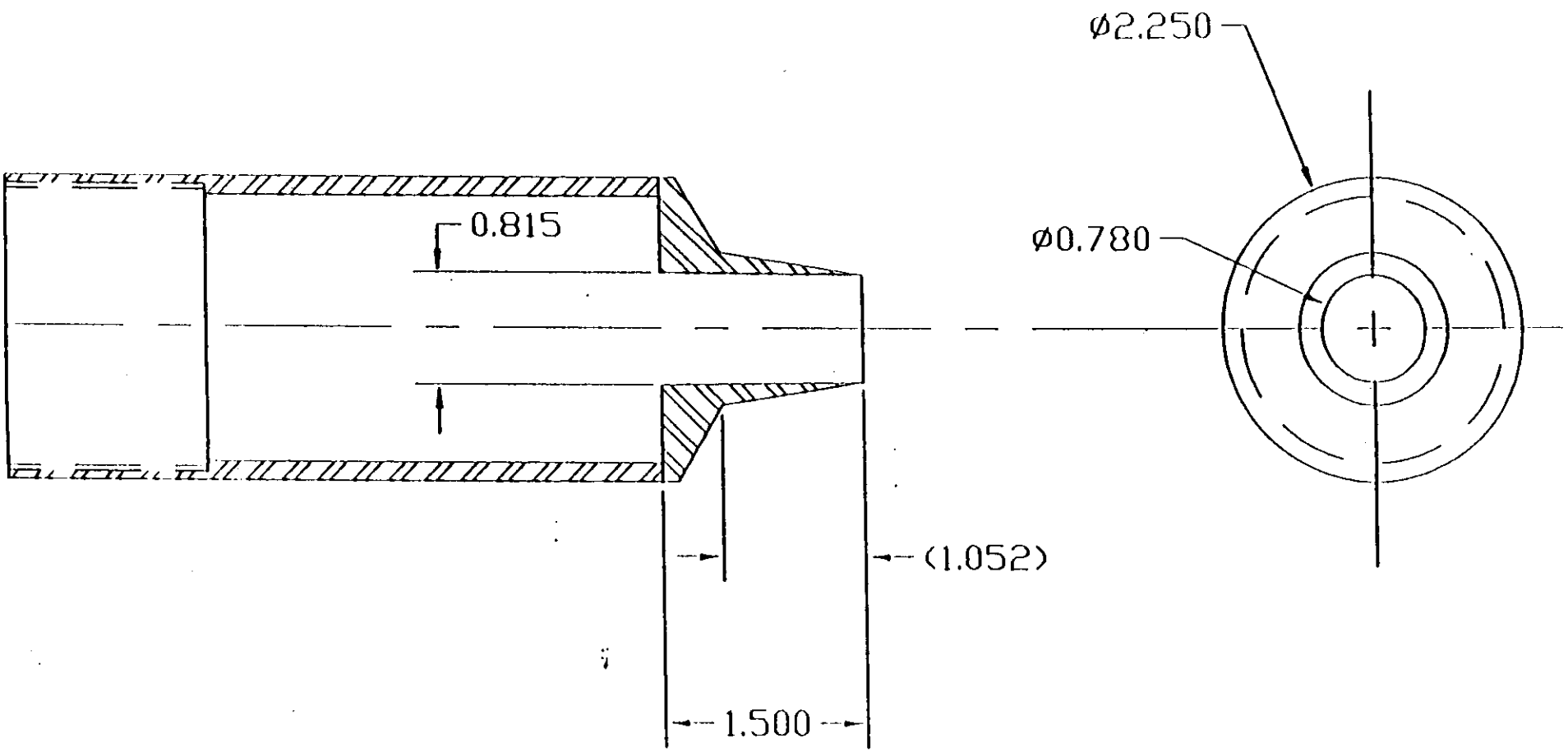
1st GENERATION MODIFICATION: 30° SHOULDER WITH COOKIE CUTTER NOSE.



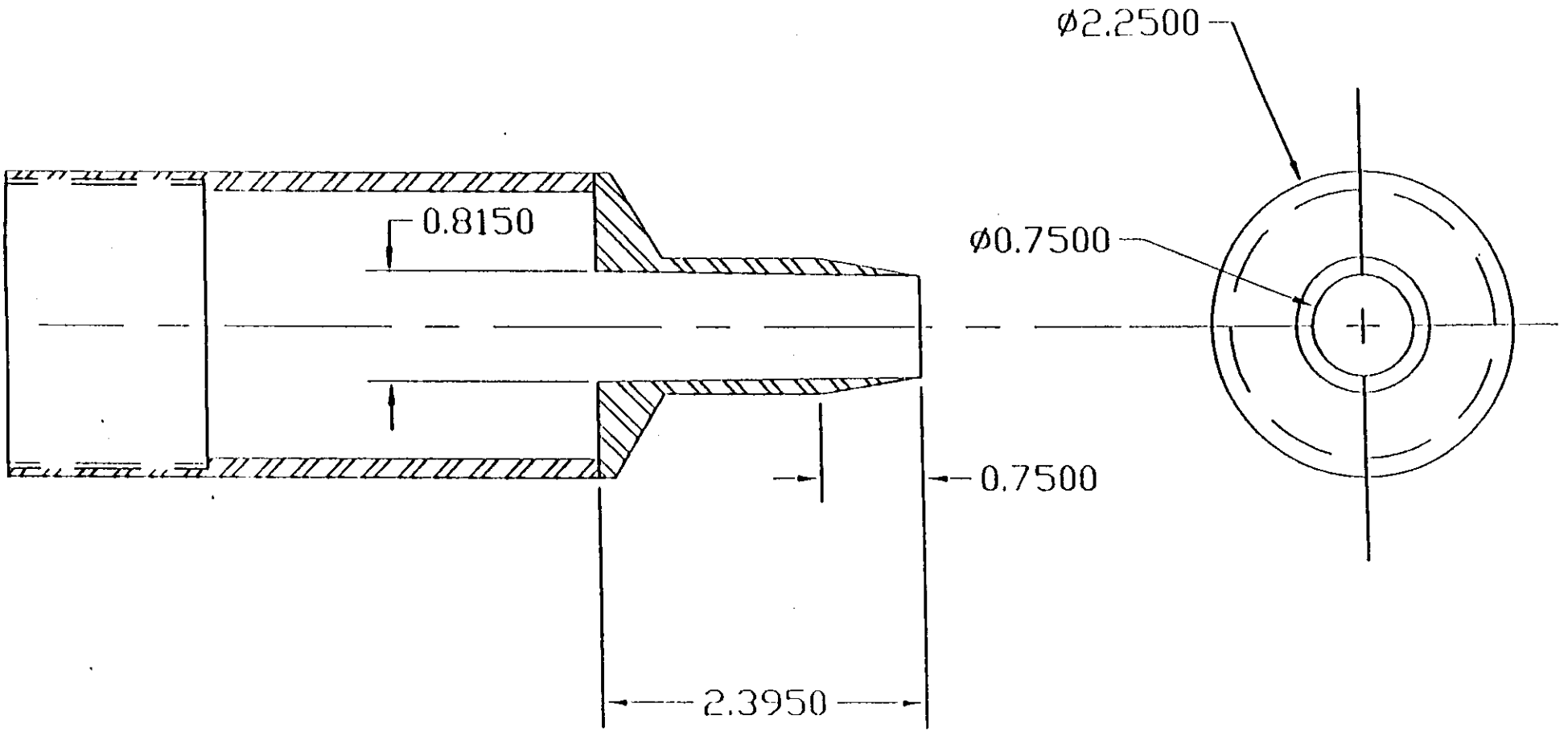
1st GENERATION: FLAT SHOULDER WITH SHORT COOKIE CUTTER NOSE



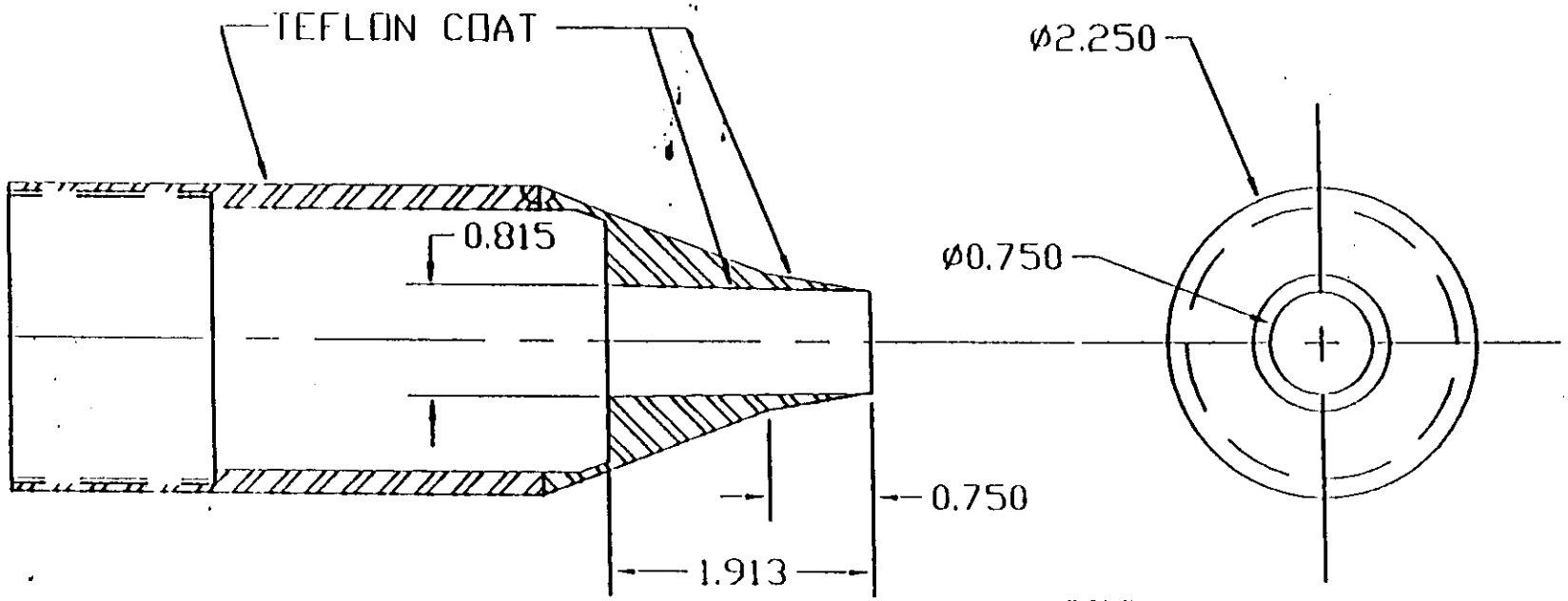
1st GENERATION: FLAT SHOULDER WITH LONG COOKIE CUTTER NOSE



1st GENERATION MODIFICATION: 30° SHOULDER WITH LONG COOKIE CUTTER NOSE



1st GENERATION MODIFICATION: 30° SHOULDER WITH EXTREME NOSE.



NOTE: 1-2 MIL TEFLON COAT ALL EXTERNAL SURFACES AND BORE OF DRILL BIT AFTER MACHINING.

2nd GENERATION MODIFICATION: STEEP SHOULDER, TEFLON COATED, COOKIE CUTTER NOSE.